



## How space charter has responded to major disasters? Lessons and perspectives

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### Abstract:

Space based Disaster Management System has the distinct advantage of being unaffected by disasters on the ground and provides unbiased, synoptic and timely information on the nature and impact of the disasters. Indian Space Research Organization has developed several applications/programs and techniques with the space imagery to support disaster management. Further, ISRO is a signatory to the International charter "Space and Major Disasters" along with space agencies of Canada (CSA), Europe (ESA, CNES, DMC), USA (USGS, NOAA), Argentina (CONAE) and Japan (JAXA). Recently in May 2007, Chinese space agency (CNSA) joined the Charter and is in the process of getting integrated into Charter operations. International charter "Space and Major Disasters" is the maiden initiative of this kind, in which, space faring nations formally participate to pool their space and ground segment resources and deliver data in emergency situations. The Asian earthquake and tsunami disaster event of December 26, 2004, a rare kind of event in the human civilization, has brought into fore several issues and challenges pertaining to the operational efficiency of International Charter. Charter was placed to a scenario where it had to perform and to demonstrate what it could do for the wounded South East Asian subcontinent. The satellite images acquired under the Charter were distributed to number of rescue and relief agencies, on request. The kind of response the Charter received from the user agencies from all around the world once again established its significance and role for major disasters and its wider user base. This paper brings out the objectives of International charter "Space and Major Disasters" its operational organization, support mechanism and application for major disasters such as Flood, Cyclone or Hurricane, Forest-Fire, Volcano and Oil-spill. ISRO plays an active role in the charter functioning by sharing secretariat, Emergency on Call Officer and Project Manager Support services, and a brief account of ISRO's participation in the charter operations is provided. Charter has been active since 2000, providing useful service to humanity during major disasters all over the globe. Performance of the charter thus far, with illustrative case studies of selected charter activations are included. The paper also highlights contribution made for the Earthquake in India and Pakistan occurred during 2005, as well as recent floods in India. Copyright IAF/IAA. All rights reserved.

**Source:** <http://www.proceedings.com/02817.html>

### Resource Description

**Communication:** 

# Climate Change and Human Health Literature Portal



resource focus on research or methods on how to communicate or frame issues on climate change;  
surveys of attitudes, knowledge, beliefs about climate change

A focus of content

**Other Communication Audience:** Disaster response and planning

**Early Warning System:**

resource focus on systems used to warn populations of high temperatures, extreme weather, or other elements of climate change to prevent harm to health

A focus of content

**Exposure :**

weather or climate related pathway by which climate change affects health

Extreme Weather Event

**Extreme Weather Event:** Flooding, Hurricanes/Cyclones, Wildfires

**Geographic Feature:**

resource focuses on specific type of geography

None or Unspecified

**Geographic Location:**

resource focuses on specific location

Global or Unspecified

**Health Impact:**

specification of health effect or disease related to climate change exposure

Health Outcome Unspecified

**Intervention:**

strategy to prepare for or reduce the impact of climate change on health

A focus of content

**Mitigation/Adaptation:**

mitigation or adaptation strategy is a focus of resource

Adaptation

**Resource Type:**

format or standard characteristic of resource

Research Article

**Timescale:**

time period studied

Time Scale Unspecified